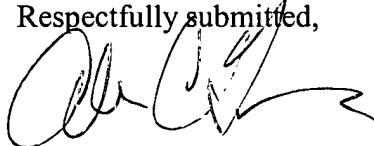


REMARKS

The Notice to Comply mailed February 27, 2003, has been received and reviewed. Responsive thereto, enclosed is a copy of the Raw Sequence Listing Error Report, along with the following items in connection with the above-referenced application: Statement under 37 C.F.R. §§ 1.821 through 1.825, paper copy of the sequence listing, CRF copy of the sequence listing. It is respectfully submitted that the specification, as originally filed, supports the SEQUENCE LISTING included herein. It is respectfully submitted that this amendment includes no new matter.

Respectfully submitted,



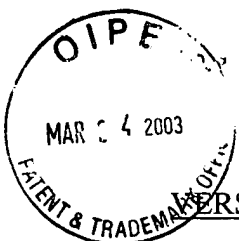
Allen C. Turner  
Registration No. 33,041  
Attorney for Applicant(s)  
TRASKBRITT, P.C.  
P.O. Box 2550  
Salt Lake City, Utah 84110-2550  
Telephone: 801-532-1922

Date: March 18, 2003

Enclosures:

Copy of Notice to Comply  
Copy of Raw Sequence Listing Error Report  
Statement per 37 C.F.R. §§ 1.821 through 1.825  
Paper copy of SEQUENCE LISTING  
CRF copy of SEQUENCE LISTING

ACT/djm  
Document in ProLaw



VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

Between Abstract and Column 1. Please incorporate the enclosed paper copy of the substitute SEQUENCE LISTING into the application on the page following the Abstract.

Column 9, para. 3. (Amended) 3) Peptide formula of N-tandem-LHRH-dimer (SEQ ID NO:6 where residues [6] 7 and [16] 17 are Gly and residue 21 is glycine amide):

1 21  
CQHWSYGLRPGQHWSYGLRPG@  
|  
CQHWSYGLRPGQHWSYGLRPG@  
22 42

IN THE CLAIMS:

5. (Amended) 5. A peptide according to claim 3 and having the structure (SEQ ID NO: [6] 7 where residue [21] 22 is Cys):

1 [6]7 [16]17 [21]22  
#CQHWSY\*LRPGQHWSY\*LRPGC  
|  
#CQHWSY\*LRPGQHWSY\*LRPGC  
[22]23 [27]29 [37]39 [42]44

wherein the amino acid \* at position [6 or 16 or 27 or 37] 7 or 17 or 29 or 39 is D-lysine or D-glutamine or another dextrorotatory amino acid with a side chain that can be coupled to a carrier compound and the other amino acid \* is either glycine or D-lysine or D-glutamine or another dextrorotatory amino acid with a side chain that can be couple to a carrier compound.



## SEQUENCE LISTING

<110> Groen, Robert H  
Oonk, Hendrica B

<120> PEPTIDE, IMMUNOGENIC COMPOSITION AND VACCINE OR  
MEDICAL PREPARATION, A METHOD TO IMMUNISE ANIMALS  
AGAINST THE HORMONE LHRH, AND ANALOGS OF THE LHRH  
TANDEM REPEAT PEPTIDE AND THEIR USE AS VACCINE

<130> 3516.2US

<140> US 09/876,257

<141> 2001-06-06

<160> 7

<170> PatentIn version 3.1

<210> 1

<211> 10

<212> PRT

<213> Unknown

<220>

<223> Luteinising Hormone Releasing Hormone (LHRH) from the  
hypothalamus of an undisclosed mammal.

<220>

<221> misc\_feature

<222> (1)..(1)

<223> X at position 1 = pyroglutamic acid

<220>

<221> misc\_feature

<222> (10)..(10)

<223> X at position 10 = glycine amide

<400> 1

Xaa His Trp Ser Tyr Gly Leu Arg Pro Xaa  
1 5 10

<210> 2

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Vaccine against LHRH from the hypothalamus of an  
undisclosed mammal.

<220>  
 <221> misc\_feature  
 <222> (1)..(1)  
 <223> X at position 1 = preferably pyroglutamic acid, but can  
 also be glutamine having attached thereto a tail comprising one or  
 more additional amino acids

<220>  
 <221> misc\_feature  
 <222> (3)..(3)  
 <223> X at position 3 = tryptophan or formylated tryptophan

91  
 <220>  
 <221> misc\_feature  
 <222> (10)..(11)  
 <223> The bond between amino acids 10 and 11 could comprise a  
 direct peptide bond between 10 and 11 or a spacer consisting  
 of one or more amino acids, a shorter or longer hydrocarbon  
 chain, or compound groups or molecules

<220>  
 <221> misc\_feature  
 <222> (13)..(13)  
 <223> X at position 13 = tryptophan or formylated tryptophan

<220>  
 <221> misc\_feature  
 <222> (10)..(20)  
 <223> The sequence comprising residues 10-20 may be repeated.

<220>  
 <221> misc\_feature  
 <222> (21)..(21)  
 <223> X at position 21 = either nothing or a tail comprising  
 additional amino acid; preferably Cys, the C terminal cysteine  
 being added in connection with a possible coupling of the  
 peptide to a carrier protein.

<400> 2

Xaa	His	Xaa	Ser	Tyr	Gly	Leu	Arg	Pro	Gly	Gln	His	Xaa	Ser	Tyr	Gly
1				5					10					15	

Leu	Arg	Pro	Xaa
			20

<210> 3  
 <211> 21

# SEQUENCE LISTING of 022

<212> PRT  
<213> Artificial Sequence

<220>  
<223> Vaccine against LHRH from the  
hypothalamus of an undisclosed mammal.

<220>  
<221> misc\_feature  
<222> (1)..(1)  
<223> X at position 1 = pyroglutamic acid

<220>  
<221> misc\_feature  
<222> (3)..(3)  
<223> X at position 3 = tryptophan or N-formyl-Trp

<220>  
<221> misc\_feature  
<222> (13)..(13)  
<223> X at position 13 = tryptophan or N-formyl-Trp

<220>  
<221> misc\_feature  
<222> (10)..(19)  
<223> The sequence comprising residues 10-19 may be repeated.

<400> 3

Xaa His Xaa Ser Tyr Gly Leu Arg Pro Gly Gln His Xaa Ser Tyr Gly  
1 5 10 15

Leu Arg Pro Gly Cys  
20

<210> 4  
<211> 21  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Vaccine against LHRH from the  
hypothalamus of an undisclosed mammal.

<220>  
<221> misc\_feature  
<222> (1)..(1)  
<223> X at position 1 = pyroglutamic acid

SEQUENCE LISTING of 022

<220>  
 <221> misc\_feature  
 <222> (6)..(6)  
 <223> X at position 6 = a possible replacement of glycine by a dextrorotatory amino acid which in addition contains a side chain by which the LHRH tandem unit can be coupled to a carrier compound.

<220>  
 <221> misc\_feature  
 <222> (16)..(16)  
 <223> X at position 16 = a possible replacement of glycine by a dextrorotatory amino acid which in addition contains a side chain by which the LHRH tandem unit can be coupled to a carrier compound.

<400> 4

Xaa His Trp Ser Tyr Xaa Leu Arg Pro Gly Gln His Trp Ser Tyr Xaa  
 1 5 10 15

Leu Arg Pro Gly Cys  
 20

<210> 5  
 <211> 11  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Vaccine against LHRH from the hypothalamus of an undisclosed mammal.

<220>  
 <221> misc\_feature  
 <222> (1)..(1)  
 <223> X at position 1 = pyroglutamic acid

<220>  
 <221> misc\_feature  
 <222> (6)..(6)  
 <223> X at position 6 = Gly or a dextrorotatory amino acid containing a side chain that allows coupling to a carrier compound.

<400> 5

Xaa His Trp Ser Tyr Xaa Leu Arg Pro Gly Cys  
 1 5 10

# SEQUENCE LISTING Of 022

<210> 6  
 <211> 21  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Vaccine against LHRH from the  
 hypothalamus of an undisclosed mammal.

<220>  
 <221> misc\_feature  
 <222> (21)..(21)  
 <223> X at position 21 = glycine amide

<220>  
 <221> misc\_feature  
 <222> (1)..(21)  
 <223> The initial cysteine of the peptide comprising  
 residues 1-21 is joined to the initial cysteine of an  
 identical peptide (residues 22-42) to form a dimer.

<400> 6

Cys Gln His Trp Ser Tyr Gly Leu Arg Pro Gly Gln His Trp Ser Tyr  
 1 5 10 15

Gly Leu Arg Pro Xaa  
 20

<210> 7  
 <211> 22  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Vaccine against LHRH from the  
 hypothalamus of an undisclosed mammal.

<220>  
 <221> misc\_feature  
 <222> (7)..(7)  
 <223> X at position 7 = a possible replacement of glycine  
 by a dextrorotatory amino acid which in addition contains a side  
 chain by which the LHRH tandem unit can be coupled to a carrier  
 compound.

<220>

<221> misc\_feature

<222> (17)..(17)

<223> X at position 17 = a possible replacement of glycine by a dextrorotatory amino acid which in addition contains a side chain by which the LHRH tandem unit can be coupled to a carrier compound.

<220>

<221> misc\_feature

<222> (1)..(22)

<223> The initial cysteine of the peptide comprising residues 1-22 is joined to the initial cysteine of an identical peptide (residues 1-44) to form a dimer.

<400> 7

Cys	Gln	His	Trp	Ser	Tyr	Xaa	Leu	Arg	Pro	Gly	Gln	His	Trp	Ser	Tyr
1				5					10					15	

Xaa	Leu	Arg	Pro	Gly	Cys
			20		

---